City of Defiance Water Treatment Plant

PWS ID OH2000111

Drinking Water Consumer Confidence Report 2024

The City of Defiance Water Treatment Plant has prepared the following report to provide information to you, the consumer, on the quality of our drinking water. Included in this report is general health information, water quality test results, how to participate in decisions regarding your drinking water, and water system contact information. Please share this information with other water consumers, such as renters and customers, who many not have received a copy of this report. In 2024, the water plant treated 1.22 billion gallons of water, with an average daily flow of 3.34 million gallons per day (MGD). Our peak daily flow was 4.92 MGD. Both of these figures were slightly higher than 2023. The water plant delivers water through the distribution system to more than 6,800 service connections, over 1,100 fire hydrants, and two, one million-gallon water towers by means of 133 miles of waterlines. Defiance also supplies water to Ayersville, Brunersburg, and Christi Meadows. Customers in these satellite systems should receive a report similar to this from their system administrators.

Where Does My Water Come From?

Defiance uses surface water from the Maumee River and the Upper Maumee River Watershed. More than half of Ohio's citizens get their drinking water from surface water sources. Water from the Maumee River is pumped to the reservoir located on Precision Way. Here the water has a chance to settle, which allows the reservoir to act as a pretreatment basin that provides the water plant with more consistent raw water quality. This also creates an isolated source of supply during times when large amounts of silt and other contaminants such as nitrates, phosphorus, algae, and ammonia can be found in the river making the water hard to treat. The water then flows back to the water plant for treatment. In 2024, the water plant pumped 1.23 billion gallons of water to the reservoir from the Maumee River spread out over 236 days.

What Are Some Sources of Contamination to Drinking Water?

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include: (A) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife; (B) Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming; (C) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses; (D) Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems; (E) Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, USEPA prescribes regulations which limit the levels of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Federal Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

Source Water Assessment/Watershed Protection

For the purposes of source water assessments, all surface waters are considered to be susceptible to contamination. By their nature surface waters are accessible and can be readily contaminated by chemicals and pathogens, with relatively short travel times from source to the intake. Based on the information compiled for the Source Water Assessment, the City of Defiance drinking water source protection area is susceptible to agricultural runoff (animal feedlots, pesticide/fertilizer storage and application), industrial and commercial sources, junkyards, above ground storage tanks, home construction runoff, oil and gas production activities, unsewered areas, and wastewater treatment plant discharges.

The City of Defiance's Public Water System treats water to meet drinking water quality standards, but no single treatment technique can address all potential contaminants. The potential and quantity of raw water contamination can and should be addressed by implementing measures to protect the Maumee River. The water plant is committed to protecting our source water and participates in watershed sampling to help give data towards the contaminants in the watershed. More detailed information is provided in the City of Defiance's Drinking Water Source Assessment Report. Copies can be requested by contacting the City of Defiance Water Superintendent at 419-782-1886.

Specific Contaminant Information

Total Trihalomethanes (TTHMs)

Some people who drink water containing trihalomethanes exceeding the MCL over many years may experience problems with their liver, kidneys, or central nervous systems and may have an increased risk of getting cancer.

Turbidity

Turbidity is a measure of the cloudiness of water and is an indication of the effectiveness of our filtration system. The turbidity limit set by the EPA is 0.3 NTU in 95% of the daily samples and shall not exceed 1 NTU at any time. As reported in the Table, the Defiance WTP's highest recorded turbidity result for 2024 was 0.58 NTU and the lowest monthly percentage of samples meeting the turbidity limits was 100%.

Lead Service and Educational Information

Per the Lead and Copper Rules, Public Water Systems were required to develop and maintain a Service Line Inventory. A service line is the underground pipe that supplies your home or building with water. To view the Service Line Inventory, which lists the material type(s) for your location, you can visit: https://cityofdefiance.maps.arcgis.com/apps/instant/media/index.html?appid=bc9607265b5c4d53b1b0eb6fb23fc6c2.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Defiance WTP is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline at 800-426-4791 or at http://www.epa.gov/safewater/lead.

Red Water/Taste and Odor Issues

From time to time, rust from the inside old iron water mains or from your plumbing may be dislodged by high flow this can lead to a red color in drinking water. Also, during certain times of the year, taste and odor problems may occur due mainly to algae in the raw water supply. Defiance Water is working hard to control and eliminate these problems from our water. If you have questions or concerns about your water, contact the City of Defiance Water Superintendent at 419-782-1886.

Unregulated Contaminants

Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted. In 2024, the City of Defiance Water Treatment Plant collected samples as part of the fifth round of the Unregulated Contaminant Monitoring Rule (UCMR 5). For more information about what contaminants that were sampled in previous years and/or a copy of these results, please contact the City of Defiance Water Superintendent at 419-782-1886.

Table of Unregulated Contaminants

Contaminant (units)	Average Level Found	Range of Detections	Sample Year	Sample Location
PFBA (ppb)	0.0063	N/A	2024	Entry Point
PFHxA (ppb)	0.005	N/A	2024	Entry Point
PFPeA (ppb)	0.0051	0.0033-0.0068	2024	Entry Point

Who Needs to Take Special Precautions?

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infection. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline at 1-800-426-4791.

About Your Drinking Water

The EPA requires regular sampling to ensure drinking water safety. The water plant staff collected and analyzed tens of thousands of samples for operational control as well as bacterial, inorganic, radiological, synthetic organic, and volatile organic contaminants during 2024. Samples were collected for over 60 different contaminants, most of which were not detected in the Defiance City water supply. The Ohio EPA requires us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though accurate, may be more than one year old.

In 2024, the City of Defiance Water Treatment Plant had an unconditioned license to operate and had no violations or enforcement actions.

Definitions of Some Terms Possibly Contained Within this Report.

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Maximum Contaminant Level (MCL): The highest level of contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

Maximum Residual Disinfectant Level (MRDL): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

Parts per Million (ppm) are units of measure for concentration of a contaminant. A part per million corresponds to one second in a little over 11.5 days.

Parts per Billion (ppb) are units of measure for concentration of a contaminant. A part per billion corresponds to one second in 31.7 years.

The "<" symbol: A symbol which means less than. A result of "<5" means that the lowest level that could be detected was 5 and the contaminant in that sample was not detected.

N/A: Not applicable.

Table of Detected Contaminants

Contaminant (units)	MCLG or MRDLG	MCL or MRDL	Level Found	Range of Detections	Violation?	Year Sampled	Typical Source of Contaminants
Microbiological Contaminants							
Turbidity (NTU)	N/A	TT	0.58	0.01-0.58	No	2024	Soil Runoff
Turbidity (% Samples Meeting Standard)	N/A	TT=95%	100%	N/A	No	2024	Soil Runoff
Total Organic Carbon (TOC) (ppm)	TT	N/A	2.1	1.9-2.4	No	2024	Naturally present in the environment.
Inorganic Contaminants							
Fluoride (ppm)	4	4	1.13	0.78-1.36	No	2024	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate (ppm)	10	10	2.04	0.40-2.04	No	2024	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Barium (ppm)	2	2	0.021	0.021	No	2024	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Synthetic Organic Contaminants, including Pesticides and Herbicides							
Atrazine (ppb)	3	3	0.07	0.07-0.07	No	2024	Runoff from herbicide used on row crops.
Simazine (ppb)	4	4	0.049	0.048-0.049	No	2024	
Residual Disinfectants							
Total Chlorine (ppm)	4	4	1.16	0.96-1.26	No	2024	Water additive used to control microbes.

Contaminant (units)	MCLG or MRDLG	MCL or MRDL	Level Found	Range of Detections	Violation?	Year Sampled	Typical Source of Contaminants
Disinfection By-Products							
Total Trihalomethanes (TTHM) (ppb)	N/A	80	72.0	25.2-71.8	No	2024	By-product of drinking water chlorination
Haloacetic Acids (HAA5) (ppb)	N/A	60	12.3	6.0-12.5	No	2024	
Lead and Copper, January 1-June 30							
Contaminant (units)	**Action Level (AL)**	**MCLG**	**Individual Results over the AL**	**90TH Percentile Value**	**Violation?**	**Year Sampled**	**Typical Source of Contaminants**
Lead (ppb)	15	0	N/A	< 2	No	2024	Corrosion of household plumbing systems; Erosion of natural deposits.
	0 out of 60 samples were found to have lead levels in excess of the lead action level of 15 ppb.						
Copper (ppm)	1.3	1.3	N/A	0.06	No	2024	Corrosion of household plumbing systems; Erosion of natural deposits.
	0 out of 60 samples were found to have copper levels in excess of the lead action level of 1.3 ppm.						
Lead and Copper, July 1-December 31							
Lead (ppb)	15	0	N/A	< 2	No	2024	Corrosion of household plumbing systems; Erosion of natural deposits.
	0 out of 60 samples were found to have lead levels in excess of the lead action level of 15 ppb.						
Copper (ppm)	1.3	1.3	N/A	0.04	No	2024	Corrosion of household plumbing systems; Erosion of natural deposits.
	0 out of 60 samples were found to have copper levels in excess of the lead action level of 1.3 ppm.						

How Do I Get Involved?

You are invited to attend the City Council meetings to voice your concerns about your drinking water. City Council Meetings are open to the public and are held at 631 Perry St. on the first, second, and fourth Tuesdays of each month at 7:00 pm.

You can also help by keeping the streams and rivers clean and reporting any potential spills or pollution sources. Accidental or unauthorized releases of contaminants to the air, land or water such as spills, releases, intentional dumping or emissions can be reported to Ohio EPA 24-hour Emergency Response Hotline at 1-800-282-9378. You can also call the water plant at 419-782-1886.

Need More Information?

If you would like more information on water in Defiance or if you would like to get a small group together (school, friends, family, church, 4-H, etc.) and take a tour of the Water Treatment Plant, call the water plant at 419-782-1886. Administrative office hours are Monday – Friday, 8 am – 4 pm.

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For more information about water related issues, please visit the following sites online:

Ohio EPA Division of Drinking and Ground Waters

https://epa.ohio.gov/divisions-and-offices/drinking-and-ground-waters

American Water Works Association

https://www.awwa.org

Este informe contiene información importante acerca de su agua potable. Haga que alguien lo traduzca para usted, o hable con alguien que lo entienda.